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A QUALITATIVE ANALYSIS OF UNEMPLOYMENT IN SPAIN

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A QUALITATIVE ANALYSIS OF UNEMPLOYMENT IN SPAIN

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ABSTRACT.

This paper analyzes the demographic characteristics of unemployment in Spain using individual household data. Binary-logit models are estimated for three microdata sets at different periods of time, which should allow to detect possible compositional changes in unemployment over time. The results indicate that characteristics such that age, education level and marital status are relevant to explain differences in unemployment, while the variable sex has little explanatory power. The estimated models are used to predict unemployment probabilities as a function of individual characteristics.

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1. INTRODUCTION.

This paper attempts to analyze the demographic characteristics of unemployment in Spain using individual household data. Since all the individuals in the labor force are not identically affected by unemployment, the objetive of this analysis is to determine the probability of being unemployed as a function of individual characteristics such as sex, age, level of education and marital status.

The data are from the Spanish Labor Force Survey (Encuesta de Población Activa), which takes place every quarter and contains approximately 150000 individuals. In this paper three samples of this survey are analyzed: the second quarter of the years 1877, 1982 and 1986. The analysis of these three samples might be useful to detect possible changes in the composition of spanish unemployment over the last decade.

The econometrics used here consists in the estimation of binary-logit models with grouped data. In these models identical individuals are grouped according to the categories of the explanatory variables which are all qualitative, so that the respective coefficients are interpreted in terms of an analysis of variance. These models can be estimated by using weighted least squares and, if sufficient repeated observations are available, the resulting estimators are consistent and have an asymptotic normal distribution.

It should be noted that discrete-choice models are used in general to explain and predict individual behavior. One can find numerous applications to study discrete economic decisions in the literature. However

these models can also be used to analyze problems in which individuals do not make any choice, but instead they find themselves in a situation that can be described in probabilistic terms. An example is presented in this paper which uses discrete-choice models to predict unemployment probabilities given a set of characteristics associated to an individual.

The structure of the paper is as follows. Section 2 describes the data. In Section 3 the econometric methodology is discussed. Section 4 presents the estimation results and some empirical findings, and Section 5 concludes the study.

2. THE DATA.

The data used in this paper are from the Spanish Labor Force Survey (Encuesta de Población Activa: EPA), which takes place every quarter since 1975. This survey is collected by the National Institute of Statistics and it is used to estimate the "official" aggregate figures of the labor force, employment and unemployment in Spain.

Each quarter the EPA covers approximately 60000 households and contains information on approximately 150000 individuals aged 16 years and over. The sampling procedure is not random, but it is designed to represent the entire nation. The basic sampling units are geographic sections which are fixed over time. On the contrary, each household is in the survey for only six consecutive quarters, being then replaced by other household in the same geographic section [for a review of the sampling methodology used in the EPA see Instituto Nacional de

Estadística (1978)]. The EPA contains detailed information on demographic characteristics (age, sex, marital status...), education, ocupation, job search, etc.

In this paper three samples of the EPA are analyzed: the second quarter of the years 1977, 1982 and 1986. The second quarter has been chosen since it is less contaminated by seasonal employment variations. A separated analysis is carried out for each sample.

In order to provide a framework for the microdata analyses, it might be useful to introduce here some aggregate figures. Table 1 summarizes the composition of the data sets that are analyzed in further sections. Note that while the aggregate participation rate in Spain has been practically stable from 2Q-1977 to 2Q-1986, the unemployment rate has increased from 4.9% in 2Q-1977 to 15.5% in 2Q-1982 and to 21.2% in 2Q-1986.

3. ECONOMETRIC METHODOLOGY: BINARY-LOGIT MODELS WITH GROUPED DATA.

To carry out the microdata analysis of spanish unemployment we estimated binary-logit models. The goal of this estimation is to find a set of characteristics of individuals which allows one best to predict the probability of being unemployed.

Since each EPA sample contains a large number of observations, identical individuals can be grouped according to the relevant characteristics given by the explanatory variables in the model. Then the sample is reduced to n groups of individuals (basic units of analysis) and each group is composed by n_i individuals with the same characteristics.

The binary-logit model is specified as:

$$P_i = F(X_i\beta) = \frac{1}{1 + \exp(-X_i\beta)} \qquad (1)$$

where P_i is the group specific probability of one of the two alternatives considered, X_i is the vector of observations of the explanatory variables for that group and β is the common vector of coefficients.

Suppose that in the ith group the event under study occurred for r_i individuals, and for $n_i - r_i$ individuals the event did not occur. Then the empirical probabilities can be calculated as $\hat{P}_i = r_i/n_i$ and related to the true ones by

$$\hat{P}_i = P_i + e_i \qquad (2)$$

where e_i is a random disturbance.

From equation (1) and equation (2) we obtain [Judge et.al. (1985, p.761-764) and Maddala (1983, p.28-32)]:

$$\log \frac{\hat{P}_i}{1 - \hat{P}_i} = X_i\beta + u_i \qquad (3)$$

$$u_i = \frac{e_i}{P_i(1 - P_i)}$$

which is the regression to be estimated, where the variance of the error term is

$$\text{var}(u_i) = \frac{1}{n_i P_i (1 - P_i)} .$$

This variance can be estimated using $\hat{P}_i$ to approximate P_i and equation (3) can be corrected for heteroscedasticity by applying weighted least squares. It can be shown [McFadden (1984)] that this estimator is consistent and asymptotically normal, with the same asymptotic covariance matrix as the maximum likelihood estimator obtained using ungrouped data.

The advantage of the approximation leading to the specification of equation (3) is to reduce the number of observations to a manageable size and to avoid using a nonlinear optimization algoritm to compute maximum likelihood estimates. However, it is important to note that this approximation is reasonable only when sufficient repetitions occur. In the analysis presented in this paper, we consider that the EPA samples are sufficiently large to justify the method.

Before proceeding further, a few words regarding to the coefficients in the model should be said. In this analysis the logistic transformation of the probability of being unemployed is related to a set of qualitative variables which models the characteristics of individuals. Hence the coefficients of equation (3) can be interpreted in terms of the analysis of variance model.

For simplicity, suppose that the dependent variable in (3) is only characterized by two attributes: age and education, attribute I with m classifications and attribute II with K clasifications (the results are easily extended to the case in which more than two attributes are considered). The model can be written as:

$$\log \frac{\hat{P}_{ij}}{1 - \hat{P}_{ij}} = \mu + \sum_{i=1}^{m} \alpha_i W_i + \sum_{j=1}^{k} \beta_j Z_j + u_{ij} \qquad (4)$$

where

$W_i = 1$ if observation belongs to the ith classification of attribute I (age).

0 otherwise.

$Z_j = 1$ if observation belongs to the jth classification of attribute II (education).

0 otherwise.

Also, restrictions such as [Andrews et.al. (1973)]:

$$\sum_{i=1}^{m} \alpha_i = 0 \qquad \text{and} \qquad \sum_{j=1}^{k} \beta_j = 0 \qquad (5)$$

need to be imposed, and the equation must be reparameterized so that the restrictions are incorporated. One such reparameterization is to define the new variables:

$$W_i^* = W_i - W_m \qquad \text{for } i = 1,2,\ldots,m-1$$

$$Z_j^* = Z_j - Z_K \qquad \text{for } j = 1,2,\ldots,k-1$$

The model then becomes:

$$\log \frac{\hat{P}_{ij}}{1 - \hat{P}_{ij}} = \mu + \sum_{i=1}^{m-1} \alpha_i W_i^* + \sum_{j=1}^{k-1} \beta_j Z_j^* + u_{ij} \qquad (6)$$

where the parameters to be estimated are:

(i) μ: the "general mean" that is constant over all individual groups. This coefficient represents the logistic transformation of the probability of being unemployed for the average individual in the sample, i.e. without considering differences of age and level of education.

(ii) α_i for $i=1,2,\ldots,m$: measuring the difference from the general mean for the ith age group.

(iii) β_j for $j=1,2,\ldots,K$: measuring the difference from the general mean for the group with a jth level of education.

Note that after estimating equation (6), the ommited coefficients α_m and β_K can be calculated from the restrictions in (5).

There are other alternative procedures to estimate equation (4) [Dhrymes (1978, p.206-216)]. However the advantage of the reparameterization imposed in equation (4) is that the interpretation of the coefficients becomes straightforward. Each set of dummy variable coefficients has intuitive meaning independent of the categories of the remaining dummy variables in the model.

4. ESTIMATION RESULTS.

In this Section we discuss the estimation results of the logit models. The endogenous variable is the logistic transformation of the empirical probability of being unemployed. The exogenous variables used in the estimation process are listed in Table 2.

Tables 3.a, 3.b and 3.c present desaggregate unemployment rates by some individual characteristics: Table 3.a by age and sex, Table 3.b by age and level of education and Table 3.c by marital status and sex. These percentages have been calculated from the EPA samples and give us a first idea about differences among selected demographic unemployment rates. Also they will be helpful to find an adequate specification of the logit equation associated with unemployment.

The estimates of a first specification of the model are presented in Table 4. In this specification four characteristics are included (sex, age, level of education and marital status) with no interaction effect taken into account. The most relevant findings are as follows:

(i) The sex dummies do not have any significant effect on the probability of being unemployed in any of the three quarters.

(ii) Age seems to be a very important factor to determine unemployment probabilities. Individuals between 16 and 24 years of age have a probability of being unemployed above average, whereas those above 35 years of age have an unemployment probability below average. In either case, the effect is bigger in absolute value as we move towards youngest and oldest individuals.

(iii) The results in (i) and (ii) reflect the distribution of the desaggregate unemployment rates by age and sex presented in Table 3.a. Note that within each age-group there is no substantial difference between the unemployment rates of males and females. But the unemployment rates of different age-groups show considerable differences, being particularly high for young individuals. For instance, in the 2Q-1986 the unemployment rate of female teenagers is 54.2% while only 4.9% females over 55 years of age are unemployed.,

(iv) For the level of education, the "a priori expected" result that as the level of education increases the probability of being unemployed declines does not hold.

The differential effect for individuals without studies (EDU1) is positive and significant. For intermediate levels of education (EDU2, EDU3 and EDU4) this effect is negative although not always significant. However the coefficient of EDU5 (university) is positive and significant in 2Q-1977 and 2Q-1982 and non-significant in 2Q-1986. This last result is puzzling but it can be explained by the distribution of the desaggregate unemployment rates by age and education presented in Table 3.b. Note the following:

a) In 2Q-1977 and 2Q-1982 the unemployment rates of the individuals aged 20-24 years with EDU5 are the highest respect to the remainder categories (30.0% in 2Q-1977 and 56.4% in 2Q-1982). Also the percentage of individuals aged 25-34 with EDU5 that are unemployed is considerably high.

b) Though the unemployment rates of individuals aged 20-24 and 25-34 years with EDU5 are not inferior in 2Q-1986 than in the previous quarters, the relative differences respect to the other groups are smaller. This

explains that the estimated coefficient of EDU5 in this sample is not significant.

(v) Finally, the marital status dummy coefficients are negative for married individuals and positive for those without spouse. In addition, Table 3.c suggests the existence of interaction between sex and marital status: the unemployment rates of individuals with the same sex but different marital status present substantial differences, in spite of the fact that the sex variable was not significant in Table 4.

Table 5 presents the estimation results of a second specification of the model in which the interactions between sex and marital status and between age and level of education are the explanatory variables.

(i) Respect to the interactions between sex and marital status, all the coefficients have the sign expected from the previous analysis. The following should be noted:

a) In 2Q-1977 the differential effect on the probability of being unemployed is positive for single women, while in 2Q-1982 and 2Q-1986 is not significant. This fact suggests that over the last decade the labor conditions for single women have improved RELATIVELY to others individuals (during the same period the participation rate of single women has increased dramatically).

b) The result that the probability of being unemployed for single women is higher than for married women seems to contradict the accepted belief that married women have more difficulties to find a job. However, an analysis of participation from the EPA samples [Gracia-Díez (1989)] suggests that this result is a consequence of

the discouraged worker effect. The deterioration in employment opportunities and the implicit value a wife places on her time reduce the participation rate of married women up to the point that most married women in the labor force are employed. "Obviously" this is not the case of single women who are not so sensitive to labor demand conditions and have higher unemployment rates.

c) The remaining question is why the unemployment rate of married men is lower than that of single men. The explanation seems to be that married men cannot afford being unemployed for a long period of time and take any job even rather than becoming unemployed.

(ii) In the second part of Table 5 the estimated interactions between age and education are presented. As we pointed out in Table 3.b, two individuals with the same education level do not have the same probability of being unemployed if their age is different.

The groups aged 16-19 and 20-24 years with any level of education have a positive and significant effect on the probability of being unemployed. Note that in the three quarters the coefficient of the group aged 20-24 with EDU5 is the highest respect to the other groups. Also the coefficient of individuals aged 25-34 with EDU5 is positive and significant in 2Q-1977 and 2Q-1982. These results support the hypothesis that the positive and significant effect of the variable EDU5 in the first specification of the logit model (Table 4) is due to the high unemployment rate of young individuals with university studies.

On the other hand, for individuals over 35 years of age the level of education affects the probability of being unemployed in the expected way: as the level of education increases the unemployment probability declines.

This estimated difference between individuals under and over 35 years of age suggests that much of the very important increase in unemployment (see again Table 1) has fallen on the young population.

Finally Table 6 contains, for the three quarters, the estimated probabilities of being unemployed derived from Table 5. The estimated rates are referred to different "average individuals". Specifically, this table presents the unemployment rates of males and females desaggregated by marital status, age and education level. The main results are summarized as follows:

a) For the same sex, age and education level, the unemployment rates of married individuals are considerably lower than those of single individuals.

b) Single individuals aged 20-24 with university studies have the highest estimated probabilities of being unemployed. In 2Q-1977, 2Q-1982 and 2Q-1986 these rates are 34.9%, 63.6% and 66.6% respectively for males and 31.4%, 53.3% and 55.0% respectively for females.

c) The estimated unemployment rates of both young individuals (with any education level) and individuals over 35 years of age without studies have increased considerably from 2Q-1977 to 2Q-1986. On the contrary, the estimated probabilities of individuals over 35 years with university studies have been relatively stable from 2Q-1982 to 2Q-1986. These results suggest that in Spain both the youth and less qualified individuals have mainly beared the increase in unemployment over the 1980s.

5. CONCLUSIONS.

The objective of this paper has been to analyze the characteristics of unemployment in Spain using individual household data from the Spanish Labor Force Survey. Three microdata sets of this survey at different periods of time have been analyzed using binary-logit models with grouped data.

The objetive of the analysis is to estimate unemployment probabilities as a function of individual characteristics. These estimated probabilities can then be used for prediction purposes within the context of discrete-choice models.

The results indicate that as age increases the probability that an individual will be unemployed declines. However, the expected result that as the level of education is higher the probability of being unemployed declines does not hold. Individuals aged 19-34 years with university studies have a much higher probability of being unemployed than individuals with the same age and lower education. Married individuals have a lower probability of being unemployed than single individuals, although in the case of women it seems that this result is because married females have a lower participation rate. The variable sex has not been significant.

We also found that while the participation rate of single women has sharply increased over the last decade, the unemployment rate of single women has increased less than the unemployment rate of other groups of individuals. This might be explained by the fact that the education level of spanish women is clearly increasing. Finally, the dramatic increase in unemployment in Spain over the 1980s seems to have fallen on both the young population and individuals without studies.

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TABLE 1. COMPOSITION OF THE EPA MICRODATA SETS.

	2Q-1977	2Q-1982	2Q-1986
Individuals aged 16 years and over	154,207	157,410	158,716
Participation rate	48.43	48.07	47.54
Employed(%)	95.13	84.45	78.75
Unemployed (searching first job)(%)	1.80	6.82	8.95
Unemployed (worked previously)(%)	3.07	8.73	12.30

Source: EPA (Spanish Labor Force Survey).

TABLE 2. DEFINITION OF THE VARIABLES

sex.

Two dummy variables taking the value:

SEXF = 1 if individual is female

SEXM = 1 if individual is male

and 0 otherwise.

marital status.

Two dummy variables taking the value:

MSM = 1 if individual is married

MSS = 1 if individual is single, widower or divorced

and 0 otherwise.

age.

Six dummy variables taking the value:

A16-19 = 1 if individual is 16-19 years of age

A20-24 = 1 if individual is 20-24 years of age

A25-34 = 1 if individual is 25-34 years of age

A35-44 = 1 if individual is 35-44 years of age

A45-54 = 1 if individual is 45-54 years of age

A55+ = 1 if individual is 55 and over years of age

and 0 otherwise.

level of education.

We consider five levels of education. The following dummy variables take the value:

EDU1 = 1 if individual has no studies

EDU2 = 1 if individual has primary studies

EDU3 = 1 if individual has high school

EDU4 = 1 if individual has an intermediate level

EDU5 = 1 if individual has university studies

and 0 otherwise.

TABLE 3.a UNEMPLOYMENT RATES BY AGE AND SEX.

2Q-1977

	A16-19	A20-24	A25-34	A35-44	A45-54	A55+
Female	16.4	9.5	4.2	1.9	1.1	0.7
Male	13.1	9.6	4.8	3.2	0.2	2.6

2Q-1982

	A16-19	A20-24	A25-34	A35-44	A45-54	A55+
Female	45.7	33.8	15.9	5.8	3.5	1.7
Male	43.5	31.6	13.8	7.6	6.9	6.5

2Q-1986

	A16-19	A20-24	A25-34	A35-44	A45-54	A55+
Female	54.2	46.7	24.7	11.5	7.8	4.9
Male	48.6	40.7	16.1	11.6	11.1	11.4

Source: EPA (Spanish Labor Force Survey).

TABLE 3.b UNEMPLOYMENT RATES BY AGE AND EDUCATION.

2Q-1977

	A16-19	A20-24	A25-34	A35-44	A45-54	A55+
EDU1	20.1	15.8	11.3	7.9	5.1	3.2
EDU2	13.6	8.0	3.9	2.0	1.8	1.9
EDU3	25.7	12.5	4.3	0.8	1.9	0.5
EDU4	19.5	17.4	3.2	1.1	0.6	1.4
EDU5	--	30.0	9.6	0.9	0.1	0.1

2Q-1982

	A16-19	A20-24	A25-34	A35-44	A45-54	A55+
EDU1	51.8	31.5	22.9	12.9	10.6	8.2
EDU2	43.6	29.0	13.7	7.1	5.3	4.7
EDU3	56.3	37.0	11.3	4.7	3.1	3.4
EDU4	49.2	48.7	13.0	2.6	2.9	2.9
EDU5	--	56.4	22.1	3.0	1.7	0.1

2Q-1986

	A16-19	A20-24	A25-34	A35-44	A45-54	A55+
EDU1	61.2	46.7	35.1	23.8	19.6	15.4
EDU2	50.3	41.3	20.9	11.6	8.9	8.5
EDU3	55.5	46.1	15.3	6.6	4.3	4.6
EDU4	58.0	48.8	19.9	5.6	3.2	4.3
EDU5	--	58.6	24.9	4.6	2.2	1.4

Source: EPA (Spanish Labor Force Survey).

TABLE 3.c UNEMPLOYMENT RATES BY MARITAL STATUS AND SEX.

2Q-1977

	Married	Not-married
Female	1.5	8.6
Male	2.9	9.3

2Q-1982

	Married	Not-married
Female	7.5	26.2
Male	7.9	28.0

2Q-1986

	Married	Not-married
Female	13.9	34.9
Male	11.6	34.8

Source: EPA (Spanish Labor Force Survey).

TABLE 4. ESTIMATION RESULTS OF THE LOGIT MODEL
Specification 1.

Variable	2Q-1977	2Q-1982	2Q-1986
Constant	-2.58* (35.67)	-1.54* (26.53)	-1.20* (21.86)
SEXF	-0.06 (1.45)	-0.03 (1.06)	0.04 (1.20)
SEXM	0.06 (1.45)	0.03 (1.06)	0.04 (1.20)
A16-19	1.06* (12.87)	1.36* (17.47)	1.09* (12.49)
A20-24	0.57* (6.86)	0.89* (13.19)	0.87* (12.75)
A25-34	0.01 (0.15)	0.05 (0.82)	0.09 (1.51)
A35-44	-0.36* (3.94)	-0.59* (7.24)	-0.54* (7.23)
A45-54	-0.57* (5.97)	-0.80* (9.52)	-0.74* (8.88)
A55+	-0.71* (5.50)	-0.91* (6.66)	-0.77* (8.55)
EDU1	0.45* (4.66)	0.35* (3.76)	0.74* (7.92)
EDU2	-0.62* (8.36)	-0.35* (5.67)	-0.15* (2.50)
EDU3	-0.17 (1.40)	-0.23* (2.24)	-0.30* (2.90)
EDU4	-0.19 (1.27)	-0.04 (0.39)	-0.19* (2.00)
EDU5	0.53* (1.99)	0.27* (2.27)	-0.10 (1.71)
MSM	-0.30* (6.30)	-0.27* (6.88)	-0.30* (7.66)
MSS	0.30* (6.30)	0.27* (6.88)	0.30* (7.66)
R^2	0.98	0.97	0.95

Notes: (1) The dependent variable is the logistic transformation of the probability of being unemployed.

(2) Absolute value of t-statistics in parentheses.

(3) * indicates coefficient significantly different from 0 with 95% confidence.

TABLE 5. ESTIMATION RESULTS OF THE LOGIT MODEL
Specification 2.

Variable	2Q-1977	2Q-1982	2Q-1986
Constant	-3.17* (13.12)	-1.98* (7.25)	-1.37* (11.55)
SEXF*MSM	-0.77* (6.18)	-0.41* (4.73)	-0.29* (4.04)
SEXF*MSS	0.35* (3.64)	0.11 (1.46)	0.05 (0.71)
SEXM*MSM	-0.09 (1.19)	-0.20* (3.14)	-0.30* (5.17)
SEXM*MSS	0.51 (1.31)	0.50* (8.33)	0.54* (6.00)
A1619*EDU1	1.40* (4.01)	1.77* (3.71)	1.46* (2.67)
A1619*EDU234	0.99* (3.96)	1.45* (5.14)	1.11* (7.56)
A2024*EDU1	1.22* (3.45)	1.03* (2.41)	1.15* (2.58)
A2024*EDU234	0.57* (2.26)	1.03* (3.70)	0.86* (6.43)
A2024*EDU5	2.04* (4.33)	2.00* (4.04)	1.52* (2.95)
A2534*EDU1	1.09* (3.76)	0.83* (2.41)	0.85* (3.27)
A2534*EDU234	-0.06 (0.24)	0.18 (0.63)	0.07 (0.51)
A2534*EDU5	1.08* (3.13)	0.80* (2.35)	0.31 (1.41)
A3544*EDU1	0.84* (3.09)	0.25 (0.78)	0.41* (2.00)
A3544*EDU234	-0.68* (2.54)	-0.50 (1.74)	-0.55* (3.82)
A3544*EDU5	-0.85* (2.85)	-0.65 (0.83)	-1.45* (2.88)
A4554*EDU1	0.40 (1.47)	0.07 (0.24)	0.19 (1.07)
A4554*EDU234	-0.73* (2.73)	-0.77* (2.64)	-0.78* (5.01)
A4554*EDU5	-3.69* (2.27)	-1.70 (1.73)	-2.05* (2.24)
A55+*EDU1	-0.05 (0.16)	-0.14 (0.45)	0.13 (0.67)
A55+*EDU234	-0.63* (2.26)	-0.83* (2.73)	-0.79* (4.64)
A55+*EDU5	-2.94* (2.95)	-4.82* (8.23)	-2.44* (3.67)
R^2	0.98	0.97	0.96

Notes: See notes in Table 4

The variable EDU234 = EDU2+EDU3+EDU4

TABLE 6. UNEMPLOYMENT RATES ESTIMATED FROM THE LOGIT MODEL. Specification 2 (Table 5)

	2Q-1977		2Q-1982		2Q-1986	
MARRIED	male	female	male	female	male	female
A16-19*EDU1	13.4	7.3	39.9	34.9	44.7	45.0
A16-19*EDU234	9.3	5.0	32.5	28.1	36.3	36.6
A20-24*EDU1	11.5	6.2	24.0	20.4	37.2	37.5
A20-24*EDU234	6.3	3.3	24.0	20.4	30.8	31.0
A20-24*EDU5	22.7	13.0	45.5	40.4	46.2	46.5
A25-34*EDU1	10.2	5.5	20.5	17.4	30.5	30.8
A25-34*EDU234	3.4	1.8	11.9	9.9	16.8	16.9
A25-34*EDU5	10.1	5.4	20.1	16.9	20.4	20.6
A35-44*EDU1	8.1	4.3	12.6	10.5	22.1	22.3
A35-44*EDU234	1.9	0.01	6.4	5.3	9.8	9.9
A35-44*EDU5	1.6	0.01	5.6	4.6	4.2	4.3
A45-54*EDU1	5.4	2.8	10.8	8.9	18.5	18.7
A45-54*EDU234	1.8	0.01	4.9	4.1	7.9	8.0
A45-54*EDU5	0.1	0.001	2.0	1.6	2.3	1.9
A55+*EDU1	3.5	1.8	8.9	7.4	17.6	17.8
A55+*EDU234	2.0	1.0	4.6	3.8	7.8	7.9
A55+*EDU5	0.2	0.001	0.1	0.001	1.6	1.6
SINGLE						
AE16-19*EDU1	22.1	19.5	58.2	47.5	65.3	53.5
A16-19*EDU234	15.8	13.8	50.2	39.6	56.9	44.8
A20-24*EDU1	19.2	16.8	39.9	30.2	57.9	45.8
A20-24*EDU234	12.1	9.5	39.9	30.2	50.7	38.7
A20-24*EDU5	34.9	31.4	63.6	53.3	66.6	55.0
A25-34*EDU1	17.2	15.0	35.2	26.1	50.5	38.4
A25-34*EDU234	6.2	5.3	22.1	15.6	31.8	22.3
A25-34*EDU5	17.1	14.9	34.5	25.5	37.2	26.7
A35-44*EDU1	13.9	12.1	23.3	16.5	39.6	28.7
A35-44*EDU234	3.4	2.9	12.6	8.5	20.1	11.8
A35-44*EDU5	2.9	2.5	11.0	7.4	9.3	5.9
A45-54*EDU1	9.4	8.2	20.2	14.1	34.5	24.4
A45-54*EDU234	3.3	2.8	9.8	6.7	16.6	10.9
A45-54*EDU5	0.2	0.001	4.1	2.7	5.3	3.3
A55+*EDU1	6.2	5.4	17.1	11.8	33.1	23.3
A55+*EDU234	3.6	3.1	9.4	6.3	16.5	10.8
A55+*EDU5	0.4	0.003	0.1	0.001	3.6	2.2